

QUICKSILVER RADAR GUN INSTRUCTION MANUAL

DRAFT VERSION

Revised 8/2/01

Principles of Operation:

The Quicksilver Radar Gun is a microprocessor based computing device that uses a low power doppler radar transceiver. The radar gun sends out a signal, which bounces off the object you are targeting and is reflected back to the radar gun. A mixer provides the difference in the frequencies of the original sent signal, and the signal that was reflected back. From the difference in signal, which is proportional to the speed of the object, a microprocessor calculates the speed and displays it on the LCD screen in either MPH (miles per hour) or KMH (kilometers per hour).

Operating Your Radar Gun

To register an object's speed; the object must be coming toward or going away from the radar gun, please reference figure. The radar gun will not read or will give a false reading on an object passing across the front of the gun on a perpendicular path, please reference figure. The angle at which the object is coming at, or going away from, the direction that the gun is pointing can affect the accuracy of the reading. Optimal accuracy is achieved when the object when the object is moving on a line less than 10 degrees from the line that the radar gun is pointing, please reference figure. For angles greater than this, the speed that is displayed will be less than the actual object speed. At 30 degrees off the line on the gun, the displayed speed will be about 87% of the actual speed. Size, shape and material of target object determine the range and accuracy of the reading. Large, solid objects can be read up to 100 feet away. Smaller objects such as a tennis ball or baseball have a range of 20 to 30 feet. When a speed is registered, the speed will be displayed on the screen for 5 seconds. The speed will continue to be displayed for 4 to 5 seconds. The Quicksilver Radar Gun is most accurate when measuring speeds in the range between 10 and 110 MPH.



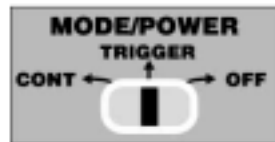
Ghost Readings

The Quicksilver Radar Gun is a very sensitive piece of electronic equipment. You may occasionally notice a speed reading in your display when there is no Target Object in sight, or you may see a speed that is obviously incorrect. These readings are called Ghost Readings and are a result of one of three sources of interference, detailed below. If you experience Ghost Readings, the best remedy is to reposition the radar gun until it is pointing away from the source of interference.

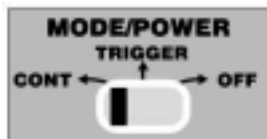
1. **Electrical Devices-** Some radio and TV towers, walkie-talkies, fluorescent lights, laptop computers and cellular phones can cause “ghost readings”.
2. **Moving Objects-** Sources include objects that move, spin, or vibrate such as fans or nearby road traffic.
3. **Vibration-** Tapping or bumping the gun when it is trying to acquire a target can generate vibration which the Radar Gun will perceive to be a target object.

Off/ Trigger/ Continuous

The power slide switch has three positions, Off, Trigger and Continuous. The two “On” positions are described below:



Trigger- When in the “Trigger” mode, the Radar Gun will only record a speed when the trigger is pulled. The speed will be displayed for 4 seconds.



Continuous- When in the “Continuous” mode, the Radar Gun is continually trying to acquire a speed. When a speed is registered, it will be displayed for 5 seconds. A new speed cannot be acquired until the previous speed is no longer displayed.

Auto Off

When in “Trigger” mode, the Radar Gun has been programmed to turn itself off after 1.25 minutes of inactivity to maximize battery life. In order to re-set, the slide switch must be moved to the “Off” position, then the gun may be turned back on.

Function Buttons

There are three function buttons, KMH/MPH, Filter, and Recall.



KM/MPH- This button switches the measurement between Kilometers per Hour (KMH) and Miles per Hour (MPH). The unit of measure is displayed on the LCD screen as either KMH or MPH.

Filter- When the Filter option is shown, and the LCD screen displays the word “Filter”, the Radar Gun will not register speeds less than 18 MPH, or 30 KMH. This function will prevent the Radar Gun from mistakenly registering unintended targets. For instance, when throwing a baseball at close range, the Radar Gun might register the speed of your arm moving before it registers the baseball. Having the Radar Gun in “Filter” mode will prevent this from happening and insure that only the baseball speed is recorded.

Recall- Pressing the Recall button will display the last recorded speed.

Battery Replacement

The Radio Shack Radar Gun requires 6 type AAA (1.5V) batteries for operation. To replace batteries, remove battery door retaining screw on the top side of the radar gun, and remove the battery compartment cover. Follow the orientation instructions as engraved into the battery compartment.

FCC Compliance:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the

user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Consult the dealer or an experienced radio/TV technician for help.

Note: Changes or modifications not expressly approved by Kidpower, Inc. could void the user's authority to operate the equipment.